pp 3 - 5://"Nastavniki,"/by A. Grif. /The following amateurs are mentioned in this article on Radioexpedition "Pobeda-40" ("Victory-40"), commemorating events and individuals associated with World War II./

Vladimir Mikhaylovich Ostrozhinskiy, UB5XBN, partisan and military radioman during the war and now chief of collective station UB4XWF, formerly UT5KLC.

Yevgraf Aleksandrovich Lapko, UA6EAF, as a boy sabotaged German communications in his area and went on to fight when it was liberated. He was in charge of collective station UA6KET, which was the only callsign in the 109th oblast' in the post-war years. Later he opened UK6EAC and UZ6EWA.

Yakov Isaakovich Aksel', UC2BF, a reserve colonel and leader of the radio club "Distant Countries."

Margarita Ivanovna Kal'mayeva, UC2AT, former front-line radiowoman and now head of the "Brigantina" youth club.

Leonid Grigor'yevich Vasil'yev, UA4IL, retired engineer-colonel, leader of the adolescent club "Radio."

Gennadiy Alekseyevich Peskov, UAØSSB, as a fifteen-year-old boy used to load war planes with bombs. On account of an injury suffered during a bomb attack he was not accepted in a military academy. He now bears the proud title of a builder of the Baykal-Amur Railway and has organized collective station UZØSWN.

Yevgeniy Ivanovich Lobkovskiy, UA3LAI, veteran of the Baltic Fleet.

Gennadiy Ivanovich Mozhzherin, UA1CBF, veteran of the Baltic Fleet.

p 9: "FIFTH INTERNATIONAL /COMPETITIONS/," by N. Kazanskiy, UA3AF, head of delegation.

In 1979, at the suggestion of the Central Radio Club of the GDR, the first international competitions "Mountain Field Day" were held to commemorate the 34th anniversary of the Victory over fascism -- "Pobeda-34." In 1984 the competitions were held at Kechkemet, Hungary, with the best ultrashortwavers from seven socialist countries in attendance -- Bulgaria, Hungary, the GDR, Poland, Romania, Czechoslovakia, and the Soviet Union. Among these were OK1MDK, OK1FM, OK1CA; SP9MM, SP9DH; YO2IS; LZ2KBI operators; HG1W operators. The Soviet team consisted of V. Benzar', UC2AA, S. Fedoseyev, RC2AA, G. Grishchuk, UC2AAB, V. Chernyshev, UA1MC, and S. Kezhelis, UP2BR.

The program consisted of two rounds of ten hours each, on the 144 - 146 and 430 - 440 MHz bands.

Most teams used Japanese FT-770 transceivers, whereas our team used homemade equipment; on a number of parameters the foreign equipment proved superior.

The fortunate location of Hungary provided many stations to work, from Italy, Austria, Yugoslavia, Bulgaria, the GDR, FRG, Poland, Romania, Czechoslovakia, the Soviet Union, and about 300 stations from Hungary itself. Thanks to intensive participation by many off-site Hungarian ultrashortwavers, the host team made 712 two-way contacts on 144 MHz and 330 on 430 MHz, as opposed to 198 and 61 made by the same team at last year's "Pobeda-38" competitions.

The Czechoslovak team used a winning tactic -- working distant stations worth more points and working as many large squares as possible to increase the multiplier. While this team worked significantly fewer stations than, say, the Hungarian team, the Czechoslovak sportsmen won on both bands, with 86,292 points on 144 MHz and 25,350 on 430. The Soviet team came in second on both with 66,700 and 15,675 points respectively.

The "Pobeda-39" /the name of the competitions described in this article - Tr./ competitions demonstrated that each year ultrashortwave operation is increasing in popularity in the

The "Pobeda-39" competitions /as the contest described in this article was called - Tr./ demonstrated that with each passing year ultrashortwave operation is increasing in popularity in the socialist countries.

Unfortunately, Soviet amateurs participated little in these very interesting competitions. And they could have made available many more large squares to all participants and especially to our team. This question -- preparation of off-site participants -- merits serious attention on the part of local federations of radio sport, in particular those of the Ukrainian, Belorussian, Latvian, Lithuanian, and Estonian SSR's.

pp 10 - 11: "Time to Go Forward," by N. Grigor'yeva.

The XIII Ultrashortwave Radiocommunication Championship of the USSR, held near Genichesk on the Sea of Azov, drew 10 teams from union republics and the cities of Moscow and Leningrad. For the first time all teams entered all three rounds (on 144, 430, and 1215 MHz). For the fourth time the mixed team from the Ukraine won; its three members and their trainer are shown in an accompanying photo: Left to right: O. Dudnichenko, trainer V. Garanzha, A. Babich, and V. Baranov. Belorussia came in second and Moscow third. RSFSR team member Mikhail Kozerodov from Kirov made a record number of contacts -- 315 -- but lost out on account of the scoring system under which each team member received, in addition to his own QSO points, one third of his team's points. Master of Sport International Class Vyacheslav Baranov from Uzhgorod won a gold medal and the title of Champion of the USSR for having been on the winning team three times.

A considerable improvement in equipment and a lessening of mutual interference between participants was noted this year. These complicated competitions were organized well, and participants were given an opportunity to discuss problems at a technical conference and a two-hour display and competition of equipment.

It can now be said with confidence that our leading ultrashortwavers have mastered the 144, 430, and 1215 MHz bands. It is time to move ahead. So the Federation of Radio Sport of the USSR has added another round on the 5.6 GHz band. The length of each round will now be two hours.

In our country there is as yet not a single amateur station on 5.6 GHz, so the constructors of ultrahighfrequency equipment will have to design, quickly, simple gear capable of mass production. Evidently this gear will be based on a varactor frequency multiplier located on the antenna and fed by cable -- the rule against anything on antennas is repealed. Many believe that it will prove desirable to use separate antennas for send and receive -- parabolic antennas approximately 50 cm in diameter.

It is now very important to decide where this equipment is to operate. In the USSR the segment 5650 - 5670 GHz is allocated for amateur use. The international Radio Regulations permit use of a broader band, all the way up to 5780 GHz. The segment 5760 - 5780 GHz is convenient since simple frequency multipliers can be used with existing 2-meter, 70-cm, and 23-cm gear; it is no accident that this is the segment presently being used by foreign amateurs. The FRS of the USSR should raise the question of allocating this segment for our ultrashortwavers as well. This will speed up the opening up of this band.

p 11, insert: "NEW QTH-LOCATOR SYSTEM," by S. Bubennikov, Deputy Chairman of the Ultrashortwave Committee of the Federation of Radio Sport of the USSR. ((The author writes extensively in "Radio" on ultrashortwave -- i.e. VHF/UHF/SHF -- and propagation topics, but as far as I recall has no individual call-sign. The presentation in this article and in the accompanying illustrations -- see insert if you have access to "Radio" magazine -- strikes me for its clarity - Tr.)) ((Full text.))

The nature of distant ultrashortwave communication involves operation using signals received, in many cases, on the threshhold of audibility. Under such conditions it is necessary to reduce the information transmitted to the minimum. On the other hand, each distant communication is an achievement that is evaluated in accordance with the distance covered. Ultrashortwavers have therefore found it necessary to use a system of encoded transmission of the station location. In the beginning this was called QRA- and then QTH-locator. But ultrashortwave sport is developing and its geography is widening; today this system, which encompasses only Europe and adjacent territory in Asia and Africa, has become too "tight" for radioamateurs. It turned out that some radiostations, located in different parts of the globe, had one and the same QTH locator.

For several years discussions took place in amateur circles on the design and adoption of a new system. Various plans were proposed. Finally a new system was accepted for use in 1982 in IARU Region 3 and in 1983 in Region 2. And in April 1984, at the conference at Cefalu (Italy) it was also accepted in IARU Region 1. A large number of the Region's national organizations ((i.e. national amateur societies - Tr.)), including the USSR, in accordance with the IARU recommendations, are introducing this system as of 1 January 1985.

Just what does this new system amount to?

The entire globe is broken down into 324 (18 x 18) sectors measuring 10 degrees latitude by 20 degrees longitude and designated by two capital letters of the Latin alphabet from A to R (see insert). Each sector consists of 100 (10 x 10) large squares measuring 1 degree latitude by 2 degrees longitude (like large squares in the old system), designated by two numbers. Together with the sector code this will look, for example, thus: KO26 or IE11...

Each large square is divided into 576 (24 x 24) small squares, designated by two letters of the Latin alphabet. The nature and designation of the squares is evident from the map and drawing in the insert.

Thus, the difference between the new and old systems consists of increasing the locator code by one character and of dividing large squares somewhat differently in longitude. Thus, the locator code for the UZ4NWF beacon was previously YT45J and is now LO49JJ.

The job of determining geographical coordinates and calculating distances will be eased by the elimination of duplicate locators.

With adoption of the new system new possibilities will open up for ultrashortwavers as regards comprehensive evaluation of their operation. Thus, beginning in 1985 the indicator "Sectors" will be introduced in the achievements tables in the "CQ-U" column of "Radio" magazine. It will reflect results of Moon communication

operation, previously not really taken into account (by our reckoning over 30 sectors are already represented in EME operation at the present time). Large squares will also be taken into account in the table, with the single difference that squares of "non-European" origin will be counted.

pp 12 - 13: "CQ."

INFO*INFO*INFO. Diplomas. INFO column by A. Gusev, UA3AVG.

In honor of the 30th anniversary of the Novosibirsk Electrotechnical Institute, the diploma NETI-30 has been established ((presumably for Soviet hams only -- Tr.)). Contacts with the Institute's collective stations UZ90WD and UZ90WM count five points, with alumni ((whose calls are listed - Tr.)) three points, and with amateurs from Novosibirskaya oblast' one point. The point count is doubled for contacts on 160 meters. Applications go to: 630087, Novosibirsk, prospekt imeni Karla Marksa, 20, NETI, komitet VLKSM (komsomol'skiy radiotsentr) ((Komsomol Radio Center, VLKSM Committee, NETI, 20 Karl Marx Prospekt, 630087 NOVOSIBIRSK)).

The "Ashkhabad" and "Turkmeniya" diplomas should be applied for at: 744020, g. Ashkhabad, abonementnyy yashchik 555, diplomnoy komissii ((Diploma Commission, Post Office Box 555, 744020 ASHKHABAD)).

QRP News. For two years collective station UT4JWD (ex-UK5JDF) has been using a transverter accessory to the R-250, based on 235-series microcircuits, with a broadband transister stage at the output and an output power not exceeding one watt. Using this rig the UT4JWD operators were able to work the European USSR without particular difficulty. But they got special satisfaction, wrote V. Kara, chief of the station, from operating with less power. In the Spring ((1984??)) they built a small, 235-series-based, transceiver with the output stage based on a KT603 transistor and an output power of about 50 milliWatts. During period of good tropospheric propagation on 28 MHz they worked UA1A, UA3, UA4, UA6, SP, DH, IK, and several others, using a three-element beam.

VHF*UHF*SHF, by S. Bubennikov.

E_s.

As always, ultrashortwavers waited impatiently for the E_s season, when with a minimum of effort (all you have to do is detect an opening) you can make distant contacts and, more important, work stations in rare QTH squares. The first opening occurred 21 May ((1984)) and on that day UA6BAC had 44 QSO's. The opening lasted about an hour, which does not happen often in that period according to experienced E_s operators.

A powerful opening was registered the night of 8 - 9 June, lasting three and a half hours and covering a vast territory from the southern Ukraine to the Baltic area. RA1ALS reported working France. The OM/XYL pair UB5DAA/UB5DAC had 65 QSO's and UR2REJ 55.

This opening was discussed a good deal in the traditional "round tables" on 14.345 MHz with anticipation of future contacts. But the E_s season of 1984 ended at that point: The last fairly lengthy opening was identified on 5 August, when UT5JAX from Sevastopol' had 22 QSO's with Italian and Spanish stations.

In sum, openings on 144 MHz were observed 16 times from 21 May through 5 August -- an E_s season of 77 days. Last year the E_s lasted 102 days and the MUF reached 144 MHz 36 times.

On the practical side, there were few E_s QSO's over distances greater than 2300 - 2500 km. A great number of ultrashortwavers, especially from the Ukraine, worked many stations on Malta; RB5QCG worked six and UB5GFS nine. UA6LJV, UA6BAC, RB5QCG, UB5LNR, and others worked SV1AB, SV1DH, SV1OE, and SV1JZ. UT5JAX worked new countries -- Sardinia (IØJU/ISØ) and the Balearic Islands (EA6IB, EA6IF)

The rarest QSO's were made by UB5DAA/UB5DAC on 8 June with Scotland -- GM3XOQ, GM3XFQ, GM6JFP, GM5UFD, GM4LER/m, and GM6LXN -- from QTH squares ZT, YS, ZR, and ZU. Even more impressive, they worked OY6CBN/6 and OY9JD (2330 km) in the Faroe Islands. They also, during the summer, succeeded in working EB5EHX, EB5EIR, and EB5EAM in squares ZZ and ZY.

...

On 3 June UA1ZCL from Murmanskaya oblast' was conducting a communication via the Moon, when UA9FAD from Perm' broke in with a loud signal. When UA1ZCL turned his antenna, UA9FAD's SSB signal rose to the point of overloading his receiver.

...

Ultrashortwave Competitions.

The VII On-site Ultrashortwave Radiocommunication Championship of the RSFSR took place from 17 through 21 August at Lipetsk. Some growth in the popularity of these competitions in the oblasts of the Russian Federation was noted -- in 1982 10 oblasts were represented, this year 11 plus the Krasnodarskiy, Primorskiy, and Khabarovskiy krays, and there was also a mixed youth team from Leningrad that participated unofficially.

In the team count the Moscow-area ((I believe this excludes participants from the city itself -- podmoskovnyye)) sportsmen and those from Kirovskaya oblast' took first and second places for the first time. The Krasnodarsk team took third.

In the individual count M. Kozerodov, UA4NW (ex-UA4NAM), P. Kornilov, RW3QQ (ex-UA3QBP), and S. Korobko, UA3DQS, came in first, second, and third.

Chronicle.

A group of amateurs from Sofia and Stara-Zagora ((Sp?)), under the leadership of well-known ultrashortwaver LZ1AB, undertook a two-stage expedition (in August during the Perseids and in October during the Orionids) to "fill in" squares OB, OC, and NB, most of whose territories lie in Turkey (from where no one as yet operates on ultrashortwave).

UB5GFS/ from Khersonskaya oblast' reported in August that he had worked LZ1AB/p in square OB01h ((old-style square in use prior to 1 January 1985 - Tr.)), over a distance of 700 km. UT5JAX from Sevastopol' worked another station of the expedition -- LZ1KSZ/p. And RB5QCG from Berdyansk had 2 QSO's over almost 900 km with LZ1AB/p and LZ1DP/p.

[Translator's note: While "Ultrashortwaver" and "Ultrashortwave" are awkward in English, the terms are used in preference to others that would be even more unwieldy, or inaccurate. Soviet amateur practice makes a basic distinction between "shortwave" (MF, HF) operation and "ultrashortwave" (VHF, UHF, SHF) operation.]

p 14: "Shortwave Championship of IARU Region 1."

"Radio" readers already know of the decision by the Region 1 IARU Conference to hold an annual Regional championship, for the lofty title of "Shortwave Radiocommunication Champion of IARU Region 1." Holders of individual amateur licenses as well as teams of collective (club) stations may compete. Champions in these two subgroups will be determined based on results of international competitions taking place during one calendar year. The competitions ((contests - Tr.)) to be counted are those sponsored by national radio amateur organizations ((national societies -- Tr.)) of IARU Region 1, plus the IARU Radiosport Championship.

Qualifying competitions are divided into two classes. The first includes competitions permitting contacts with at least five countries belong to the IARU and located in Region 1, such as the WAE DX Contest, SAC Contest, LZ DX Contest, and the CQ-M Contest. The second class includes other contests held in Region 1, such as Helvetia Contest, PACC Contest, and all RSGB competitions. Contestants receive points in accordance with how they place: In first-class competitions, the individual or team taking first place receives 100 points, second place 90, tenth place 10 points. Winners of second-class competitions receive half as many points. In first- or second-class competitions in which host-country contestants are scored separately, they receive a quarter as many points. If competitions provide for separate scoring for European and non-European stations, then points are awarded separately for these subgroups.

As of the end of 1984 there were 30 qualifying competitions. From this number the sportsman or team may choose not more than ten in which the best scores were obtained. The judging will rotate among national radioamateur organizations of Region 1, based on the official results and subject to confirmation by the Region 1 Executive Committee. Each national organization also has the right to forward its own version of the scores from its own country, to the Executive Committee.

The first year for the Region 1 championships will be 1985, and since scoring takes considerable time the champions for 1985 will only be determined toward the end of 1986. ...

pp 14, 21: "CHRONICLE of radioamateur affairs."

23 February 1972: Beginning of the All-Union Radioexpedition USSR-50 ((Latin letters in the original - Tr.)), marking 50th anniversary of formation of the USSR. Anniversary call-sign stations operated in all union republics.

30 October 1972: The first radioorientation competitions/memorial to the memory of Anatoliy Okinchits, well-known Leningrad tourist and radioamateur (UA1FP), took place; he perished in 1971 in a fight with an armed bandit.

14 August 1974: Publication of decree ((ukaz)) of the Presidium of the Supreme Soviet of the USSR awarding the Order of the Labor Red Star to "Radio" magazine on its 50th anniversary.

13 April 1975: In accordance with a decision of the Congress of Region 1 of the IARU, the Federation of Radio Sport of the USSR began conducting (once every three years) international shortwave radiocommunication competitions for the Yu. A. Gagarin cup. In the first competitions 625 amateurs from 26 countries took part. The absolute winner was V. Semenov, UA9DN, from Sverdlovsk, and the winner among collective stations was UK9ABA from Miass.

22 May - 5 June 1975: International Exhibition "Svyaz'" (("Communication")) held in Moscow. For the first time it included an amateur radio section, with over 20 exhibits by Soviet amateurs.

September 1977: Women took part for first time in Sport Radio-direction-finding Championship of Europe, held at Skope, Yugoslavia. The titles of Champion of Europe on the 3.5 MHz band were won by Soviet sportsmen Vladimir Chistyakov and Svetlana Sinyashina.

1977: Radioexpedition "Oktyabr'-60" (("October-60")) ((60th anniversary of the October Revolution - Tr.)). The anniversary stations with "U6Ø" prefixes had ... 130,000 QSO's with 150 countries and territories of the world.

17 August 1980: First experimental on-site/off-site shortwave radiocommunication competitions for the "Radio" magazine prize held at Klaipeda. They were included as annual events in the official calendar in beginning in 1981.

7 - 13 September 1980: First World Sport Radio-direction-finding Championship held at Vladislavovo, Poland. V. Chistyakov (3.5 MHz band) and G. Petrochkova (3.5 and 144 MHz bands) of the Soviet Union became first world champions. In 1983, for the first time among radiosportsmen, G. Petrochkova was awarded the title of Meritorious Master of Sport of the USSR.

30 November 1981: Beginning of radioexpedition "Pobeda-40" ("Victory-40"), dedicated to the 40th anniversary of Victory in the Great Patriotic War and scheduled to end in May 1985. The first stage consisted of activity days in Moscow and in the Moscow area, commemorating the defeat of German-fascist troops outside of Moscow.

26 October 1978 ((omitted above - Tr.)): Launching of first radioamateur satellites in the "RS" series -- "Radio-1" and "Radio-2."

17 December 1981: Launching of six radioamateur artificial satellites in the "Radio" series.

December 1983: First Sport Radiotelegraphy Championship of Europe, held in Moscow. Soviet high-speed operators S. Zelenov and Ye. Sviridovich ((the second could be a woman - Tr.)) became the first champions of Europe.

September 1984: Second World Sport Radio-direction-finding Championship held in Norway. V. Chistyakov (3.5 MHz), N. Chernysheva (144 MHz), and A. Petrov (men over 40 years of age) became world champions.

p 15: Letter to the Editor: "We're Looking for Sponsors," by S. V. Shishkalov. ((As is true generally in these summary translations, the version given below is both condensed and selective.))

I work as a physics teacher in the Uyuk Middle School, Piy-Khemskiy rayon, Tuvinskaya ASSR. ((This is the former Tannu Tuva of pre-WW II philatelic fame. It is in southern Siberia on the Mongolian border.)) I lead an independent ((I assume this means not supported by DOSAAF - Tr.)) radio club called "Volna" (("Wave" as in radio wave)) I had been bitten by short wave while studying at the Kyzyl ((capital of the Tuvinskaya ASSR)) Pedagogical Institute and received observer ((SWL)) call-sign UAØ-159-001. Three years ago upon graduation I was sent to this small settlement, whose school has 300 students and an internat ((boarding

facility)) for 50. The thought often occurred of what to do to keep the kids ((presumably those in the internat - Tr.)) busy during their free time. That's when the idea surfaced of organizing a radio circle. There were more than enough wishing to sign up. I had brought an US-9 receiver from home and we organized observer ((SWL)) point UKØ-159-ØØ1. That's how our "Volna" club was born. The kids studied enthusiastically, but there was only one set of earphones -- the others had to wait in line for the receiver. Only the most patient and curious remained in the club.

We opened our own collective station, UKØYAB. DOSAAF loaned us an R-250 receiver and RONO ((expansion unknown - Tr.)) helped with money to buy a "Shkol'naya" station. We made other equipment ourselves, though it's true my own experience in amateur radio is limited and I'm studying along with the members of the radio circle. There aren't any experienced amateurs in the settlement and my teaching duties don't permit me to travel the 70 kilometers to Kyzyl ((capital of the Tuvinskaya ASSR - Tr.)).

We were given two small rooms in the school and the DOSAAF united technical school ((presumably at Kyzyl or elsewhere - Tr.)) made available equipment for teaching the Morse code. Eight kids are already sending confidently by key, and observer ((SWL)) calls have been issued to Yevgeniy Maady (UAØ-159-ØØ3), Ivan Maady (UAØ-159-ØØ8), Svetlana Kompaneyets (UAØ-157-ØØ7) ((the "157" may be a misprint, though misprints are rare, or she may come from a different oblast' -- Tr.))*, Sergey Troyegubov, UAØ-159-ØØ4, and Nikolay Vintovkin, UAØ-159-ØØ9.

We got equipment for fox-hunting, but the "foxes" didn't come with batteries, we can't buy batteries, and the "foxes" have been lying around unused for half a year. I can see the kids losing interest. Being an adult, I can wait as long as necessary, but how about the kids? They'll finish school in a year or two, and then will others take their places? Of course, we could order batteries through the DOSAAF oblast' committee, just as we ordered a seven-band transceiver, but it will most likely take not less than five years to receive them. The school's total budget for office supplies, not just supplies for circles, is a thousand rubles, and that's very little. Sponsoring organizations ((shef = sponsor, patron)) could help but we don't have any. It's distressing to read in your magazine that there are excellent facilities somewhere for developing radio sport but they are being used badly. With us it's the other way around: There are plenty of interested people, there is plenty of enthusiasm, but practically nothing else...

So we would like, through our respected magazine, to appeal to enthusiasts of radio technology: If you've got a drop of the radio amateur in you, let us hear from you! Perhaps someone will agree to sponsor our club and to help us with advice and materially. Our address: 668514, Tuvinskaya ASSR, Piy-Khemskiy rayon, poselok Uyuk, sovkhoz "Sayanskiy", srednyaya shkola ((Middle School, "Sayanskiy" State Farm, 668514 UYUK SETTLEMENT (Piy-Khemskiy Rayon), Tuvinskaya ASSR)). We impatiently await your reply. Very truly yours, S. V. Shishkalov, physics teacher, leader of the "Volna" club.

*The latter possibility seems remote as 157 corresponds to Tambovskaya oblast', located far away some 400 km SE of Moscow.

p 15: "'Bulldozers' On The Air," from V. Alekseyev, Taganrog. ((Full text.))

Dear Editorial Board!

I am one of the beginning operators. I have not been on the air long. As do many others, I study the methods and manner of conducting communications by observing experienced amateur shortwavers. Unfortunately, some of them can by no means always serve as **models.**

More than once a violation on the 160-meter band consisting of exceeding the authorized power has, for example, been written about on the pages of the magazine. And nonetheless you run into this sort of thing every day. I even succeeded one time in hearing an on-the-air "theoretical basis" for this violation. A radioamateur from Lisichansk was complaining to a Voroshilovgrad shortwaver that they had been breeding (!) too many beginners and it was hard to work distant areas. Therefore, so this theory went, one had to act using the "bulldozer" method -- more power and wider bandwidth, so one's neighbors would scatter to either side.

Once I experienced this method myself. I was getting ready to conduct a QSO with the ninth call area. And suddenly the frequency was covered with very strong interference -- tails ((spikes? - Tr.)) from an SSB signal. The station "occupied" a bandwidth of almost 9 kHz. In Taganrog the strength of this signal was 59 + 35 dB. The operator was calling CQ. To those who tried to bring him to reason he didn't react or answered with rude remarks. The call of this "bulldozer" is UB5IAO.

Taganrog city V. ALEKSEYEV

pp 39 - 40: "PATH TO THE AIRWAVES" ((PUT' V EFIR)), by B. Stepanov, UW3AX. Continuation of series; see RADIO #9/1984 and RADIO #11/1984. ((Translator's note: Due to lack of time, what appears below represents excerpts taken out of context but considered to be of independent interest.))

In our country six shortwave and six ultrashortwave bands are available for amateur use. The shortwave bands follow:

Band	Limits (kHz)	'Phone Limits (kHz)	AM Limits
160m (1.8 MHz)	1850 - 1950	1875 - 1950	Above 1900
80m (3.5 MHz)	3500 - 3650	3600 - 3650	
40m (7 MHz)	7000 - 7100	7040 - 7100	
20m (14 MHz)	14 000 - 14 350	14 100 - 14 350	
15m (21 MHz)	21 000 - 21 450	21 150 - 21 450	
10m (28 MHz)	28 000 - 29 700	28 200 - 29 700	Above 29 000

Except for the 160 and 10 meter bands telephone subbands are not further subdivided for SSB or AM use. On 10 meters, the segment 29 300 - 29 550 kHz is set aside for space-to-Earth communication and amateur stations of the whole world must refrain from transmitting in this segment.

For international contacts the IARU recommends the ITU phonetic alphabet ((given in article)). For Russian-language QSO's, several varieties exist (cities, names, etc.); one of these is:

A	Aleksey	Zh	Zhenya	L	Leonid	S	Sergey	Ch	chelovek '	myagkiy znak (x)
B	Boris	Z	Zoya	M	Mariya	T	Tat'yana	Sh	Shura		
V	Vasiliy	I	Ivan	N	Nikolay	U	Ul'yana	Shch	shchuka	E	Emiliya
G	Grigoriy	y	Ivan	O	O'lga	F	Fedor	"	tverdyy	Yu	Yuriy
D	Dmitriy		kratkiy	P	Pavel	Kh	Khariton		znak	Ya	Yakov
Ye	Yelena	K	kilovatt	R	Roman	Ts	tsaplya	Y	igrek		

((Translator's note: For reference, the Cyrillic letters and phonetic words corresponding to the foregoing are reproduced below. The Morse code signals have been added.))

Таблица 7

Буква	Слово	Буква	Слово
А	Алексей	С	Сергей
Б	Борис	Т	Татьяна
В	Василий	У	Ульяна
Г	Григорий	Ф	Федор
Д	Дмитрий	Х	Харитон
Е	Елена	Ц	цапля
Ж	Женя	Ч	человек
З	Зоя	Ш	Шура
И	Иван	Щ	щука
Й	Иван краткий	Ъ	твердый знак
К	киловатт	Ы	игрек
Л	Леонид	Ь	мягкий знак
М	Мария		(икс)
Н	Николай	Э	Эмилия
О	Ольга	Ю	Юрий
П	Павел	Я	Яков
Р	Роман		

((Speaking of the Morse code signals that correspond to the letters of the Cyrillic alphabet, the following may be said.))

a. Most of the letters have the same Morse symbol as their Latin equivalents. Examples: A, O, T.

b. German influence can be seen in the selection of the Morse symbol for B, the Cyrillic equivalent of the Latin letter V as used in English but the Latin letter W as used in German. The Morse symbol is .-- . The symbol ...- is used for the single Cyrillic letter Ж transliterated zh. The Russian word for Geneva is Zh e n e v a and is sent ...- . -. . .-- .- .

c. There are 32 letters in the Cyrillic alphabet, as opposed to 26 in the Latin alphabet as used for English. Thirty symbols composed of four or less symbols are available ((2 one character in length, 4 two characters in length, 8 three characters in length, and 16 four characters in length), leaving two Cyrillic letters. For unclear reasons, the relatively rare letter ъ (tverdyy znak, the sixth-to-last in the Cyrillic alphabet) is simply left out; it may be that the symbol for the closely related letter ь (myagkiy znak, the fourth-to-last) is used instead. A five-character symbol is assigned to the one remaining letter Э (e oborotnoye, the third-to-last letter): ..-.. .

d. The Latin alphabet, at least as used for English, has two redundant letters: C (K or S) and X (ks) plus two, H and Q, whose sounds do not occur in Russian. The Morse code symbols for these three letters are thus available and are assigned to four of the "extra" Cyrillic letters: The symbol -.-. is assigned to Ц (ts); -..- to myagkiy znak ("soft sign," which modifies the pronunciation of the preceding consonant by adding a sound akin to that of the letter "y" in "yellow"; .... to Х (kh); --.- to Щ (shch).

e. Unused four-character symbols are used as follows: ---. to Ч (ch); ---- Ш (sh); ..-- Ю (yu); .-.- Я (ya).

(END -- Sovetskiy Patriot summary for